

REMARKS

The Official Action mailed March 12, 2003 has been received and its contents carefully noted. Filed concurrently herewith is a *Request for One Month Extension of Time*, which extends the shortened statutory period for response to July 14, 2003. Accordingly, Applicant respectfully submits that this response is being timely filed.

Applicant notes with appreciation the consideration of the Information Disclosure Statement filed on May 13, 1999.

Claims 1-11 and 14-24 were pending in the present application. New claims 25-46 have been added to recite additional protection to which Applicant is entitled. Claims 8, 9, and 14-24 have been canceled. Claims 1-7, 10, 11, and 25-46 are now pending in the present application, of which claims 1, 3, 5, 10, 25, 27, 31, 37, 38, and 41 are independent. Applicant notes with appreciation the allowance of claims 5-7 and 10-11. For the reasons set forth in detail below, all claims are believed to be in condition for allowance.

Paragraph 3 of the Official Action reiterates the objection to Figures 20-21 set forth in the Office Action dated December 6, 2001. Although the Official Action states "Figures 30-21," this is understood to be a typographical error based on the original objection in the Official Action dated December 6, 2001. Replacement sheets of Figures 20-21 including the legend "Prior Art" are attached and this objection is believed to be overcome with this submission.

Paragraph 5 of the Official Action rejects claims 1-4 and 8-9 as obvious based on the combination of JP 07-230101 to Masaya et al. and U.S. Patent 5,168,383 to Iwaki et al. It is respectfully submitted that a *prima facie* case of obviousness cannot be maintained.

As stated in MPEP § 2143-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the

teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Official Action appears to be contending that Masaya teach all the limitations of these claims except for the claimed thickness of the pixel electrode in the range of 50.5 nm to 88.4 nm. The Official Action relies upon Iwaki for curing the deficiency of Masaya inasmuch as Iwaki teach a pixel electrode having a thickness in a range of 200 to 2000Å (i.e. 20 to 200 nm). In response to Applicant's earlier arguments that the prior art, taken alone or in combination, fails to disclose the limitation that the thickness of the pixel electrode satisfies the equation $nd=\lambda/4$, the Official Action asserts that since the pixel electrode of the present invention and that of Iwaki both have the same material and since Iwaki discloses an electrode thickness range that includes the claimed range, that the thickness of Iwaki "would be at least obvious to the equation $nd=\lambda/4$." The Official Action further suggests that one of skill in the art "would be able to select [an] electrode thickness that is satisfied with $\lambda/4$ for providing desired electrical characteristics."

Applicant respectfully disagrees and asserts that the Official Action has failed to provide a sufficient basis to establish a *prima facie* case of obviousness. It is noted that the device of Iwaki appears to be a transmission type display while the claimed invention and the device of Masaya are both reflective type displays. See Figure 4 and column 6 lines 63-68 of Iwaki, for example. It should be noted that the claimed thickness range is particularly important in reflective type displays in order to increase the amount of reflected light. It should be further noted that the range disclosed by Iwaki is much broader than the claimed range and neither of Masaya nor Iwaki ever recognized the importance of the claimed thickness range. Moreover, it should be

noted that the thickness of the pixel electrode in accordance with the preferred embodiment of Iwaki is 1200Å, which is outside of the claimed thickness range.

MPEP § 2142 states "The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the present invention. MPEP § 2142 further states: "The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. 'To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.' *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985)."

In the present application, Iwaki appears to be directed to a transmission type display while the present application and Masaya are directed to reflective type displays. Also, the present invention is particularly advantageous for use in reflective type displays. The Official Action has failed to address why one of skill in the art would use the teachings from Iwaki directed to a transmission type display in a device such as taught by Masaya directed to a reflective type display.

The Official Action further ignores the fact that the range disclosed by Iwaki is much broader than the claimed range, that neither of Masaya nor Iwaki ever recognize the importance of the claimed thickness range, and that Iwaki teaches a preferred thickness of 1200Å, which is outside the claimed thickness range. Even if one of skill in the art were motivated to combine the teachings of Iwaki and Masaya, one of skill in the art would likely select the thickness range disclosed as "preferred" by Iwaki, which is well outside the claimed range.

Also, the Official Action broadly asserts that since the pixel electrode of the present invention and that of Iwaki both have the same material and since Iwaki

discloses an electrode thickness range that includes the claimed range, that the thickness of Iwaki "would be at least obvious to the equation $nd = \lambda/4$." In addition to the distinctions noted above, this assertion lacks any logical basis as to why one of skill in the art would select a thickness that satisfies this equation. The Official Action further suggests that one of skill in the art "would be able to select [an] electrode thickness that is satisfied with $\lambda/4$ for providing desired electrical characteristics" (emphasis added). In each case, however, the Official Action has failed to set forth any convincing line of reasoning as to why one skill in the art would select a thickness that satisfies this equation. This is particularly true where, as here, the prior art never recognize the importance of the claimed thickness range, and Iwaki in fact teaches a preferred thickness of 1200Å, which is well outside the claimed thickness range. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). See MPEP 2143.01.

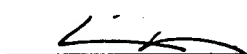
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Paragraph 6 of the Official Action rejects claims 17-19, 21, and 23 as obvious based on the combination of U.S. Patent 6,108,056 to Nakajima and Masaya. Paragraph 7 of the Official Action rejects claims 14-16, 20, 22, and 24 as obvious based on the combination of Nakajima, Masaya, and U.S. Patent 5,461,501 to Sato et al. Claims 14-24 have been cancelled and thus the rejection of these claims is moot.

dependent

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Applicant's undersigned attorney at the telephone number listed below.

Respectfully submitted,


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